

prepared for: GEMINI EXTRACTION COMPANY

3000 AIRPORT DRIVE #203 ERIE, CO 80516

CO-0159IS

Batch ID:	CO-0159IS	Test ID:	T000124545
Туре:	Concentrate	Submitted:	02/15/2021 @ 11:26 AM
Test:	Potency	Started:	2/15/2021
Method:	TM14	Reported:	2/16/2021

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.13	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.15	ND	ND
Cannabidiolic acid (CBDA)	0.18	ND	ND
Cannabidiol (CBD)	0.17	99.99	999.9
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.16	ND	ND
Cannabinolic Acid (CBNA)	0.09	ND	ND
Cannabinol (CBN)	0.04	ND	ND
Cannabigerolic acid (CBGA)	0.14	ND	ND
Cannabigerol (CBG)	0.03	ND	ND
Tetrahydrocannabivarinic Acid (THCVA)	0.12	ND	ND
Tetrahydrocannabivarin (THCV)	0.03	ND	ND
Cannabidivarinic Acid (CBDVA)	0.07	ND	ND
Cannabidivarin (CBDV)	0.04	0.41	4.1
Cannabichromenic Acid (CBCA)	0.05	ND	ND
Cannabichromene (CBC)	0.06	ND	ND
Total Cannabinoids		100.40	1004.0
Total Potential THC**		ND	ND
Total Potential CBD**		99.99	999.9

% = % (w/w) = Percent (Weight of Analyte / Weight of Product) * Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during

decarboxylation step.

Total THC = THC + (THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877))

ND = None Detected (Defined by Dynamic Range of the method)

FINAL APPROVAL

Danuel Wortoward

PREPARED BY / DATE

Daniel Weidensaul 16-Feb-2021 10:39 AM

Den Minton

Ben Minton 16-Feb-2021 2:18 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02

NOTES:

N/A



ZELIOS

3000 Airport Drive, Unit 203 Erie, CO

License No.HEMP_Zelios

Sample Received: 2/26/2021 Report Date: 3/4/2021 Report: 17044

ISOLATE

Microbials Analysis Report

METRC No. 1A4000B0000F489000002988

Batch: CO-0159IS

Sample: 95848H-C	CONCENTRATES
Item Notes:	

Rm²

LABS

TARGETED ORGANISM	PERMISSIBLE LIMIT	TEST DATA	TEST RESULT
Salmonella spp.	<1CFU/g	NOT DETECTED	PASS
STEC (E. coli)	<1CFU/g	NOT DETECTED	PASS
Total Yeast and Mold *	10,000 CFU/g	NOT DETECTED	PASS

* The reportable range for the TYAM method is 2,000 - 30,000 CFU/g. Results below 2,000 CFU/g are an estimate.

STEC = Shiga-toxin producing *Escherichia coli*

Salmonella spp. = All species under genus Salmonella

CFU = Colony-Forming Unit is a measure of viable bacterial or fungal cells.



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ZELIOS

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License No.HEMP_Zelios

Sample Received: 2/26/2021 Report Date: 3/4/2021 Report: 17044

ISOLATE

Heavy Metals Analysis Report

METRC No. 1A4000B0000F489000002988

Sample: 95848H-C CONCENTRATES

Km

LABS

Batch: CO-01591S

Item Notes: Data produced by a third-party, state licensed testing facility. Please contact Rm3 Labs Client Services for more information

			PERMISSIBLE		
SUBSTANCE	TEST DATA	UNIT	LIMIT	RESULT	
Arsenic	NOT DETECTED	ppm	< 0.2	PASS	
Cadmium	NOT DETECTED	ppm	< 0.2	PASS	
Lead	NOT DETECTED	ppm	< 0.5	PASS	
Mercury	NOT DETECTED	ppm	< 0.1	PASS	

Arsenic, Cadmium, Lead and Mercury were determined by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Permissible Limit. - The concentration of the analyte in Regulated Cannabis that is deemed acceptable by the State of Colorado. Samples that contain any analyte concentrations at or above the permissible limit shall be considered to have failed testing.

ND - Not Detected LOD - Limit of Detection

PPM - Parts per million



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ZELIOS

3000 Airport Drive, Unit 203 Erie, CO

License No.HEMP_Zelios

Sample Received: 2/26/2021 Report Date: 3/4/2021 Report: 17044

ISOLATE

Residual Solvents Analysis Report

METRC No. 1A4000B0000F489000002988

Sample: 95848H-C CONCENTRATES

LABS

Item Notes:

Batch: CO-0159IS

Measured Concentration in Parts Per Million (PPM) by GC Analysis

Residual Solvents	Total Butanes ¹	Propane	Pentane	Methanol	Ethanol	Acetone	IPA	Hexane	Ethyl Acetate	Benzene	Heptane	Toluene	Total Xylenes ²
RESULT	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	557.43	N/D	N/D
LLOϘ	129.5	98.5	403.9	241.15	403.85	402.9	402.7	24.15	403.6	1.215	401.85	72.5	172.85
ULOQ	3885	2955	6058.5	3617.25	6057.75	6043.5	6040.5	362.25	6054	12.15	6027.75	1087.5	2601
Permissible Limit	1000	1000	1000	600	1000	1000	1000	60	1000	2	1000	18O	430
% of Limit	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55.74%	ND	ND

N/D = Not Detected. The level of analyte was below the detection threshold for this test.

LLOQ = Lower Limit of Quantitation. <LLOQ signifies that the analyte was detected at a concentration below the calibrated range of the method and could not be accurately measured

ULOQ = Upper Limit of Quantitation. >ULOQ signifies that the analyte was detected at a concentration above the calibrated range of the method and could not be accurately measured.

Permissible Limit = The concentration of the analyte in cannabis that is deemed acceptable by the State of Colorado. Samples that contain any analytes at concentrations above the permissible limits shall be considered to have failed testing.

 $\mathbf{1}:$ Mixture of iso-butane and n-butane

2: Mixture of m/p-Xylene and o-Xylene



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PASS



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The Colorado Department of Revenue - Marijuana Enforcement Division (MED) currently requires Microbial analysis of cannabis flower, cannabis products, water-based, heat/pressurebased, and food-based concentrates. Microbial analysis is also required on solvent-based concentrates that were produced using flower that failed Microbial testing. This Microbial testing aims to ensure consumer safety in cannabis products from harmful health effects associated with these microorganisms. The Microbial limits enforced by MED are as follows and are expressed in terms of Colony Forming Units (CFUs):

Organism	Regulatory Limit		
Escherichia coli (STEC)	<1 CFU/g of product		
Salmonella species	<1 CFU/g		
Total Yeast and Mold	10,000 CFU/g		

Rm3 Labs' Microbial Testing Methods

At Rm3 Labs, we use a combination of microbiological plating and Quantitative Polymerase Chain Reaction (qPCR) to detect potential pathogens in cannabis samples. We quantify fungal contaminants using culture-based plating technology. Microbiological plating is a gold-standard methodology in food, beverage and environmental testing. We use qPCR, a sensitive and rapid DNA-based method, to detect bacterial pathogens based on their unique DNA sequences. qPCR is extensively used in clinical diagnostics, food, and pharmaceutical contaminant testing.

The Limitations of our Test Methods

We do not test an entire "batch" of product; we only test the sample provided by the client. Cannabis flower and some cannabis-derived products are not always uniform in nature and concentrations of microorganisms may vary from sample to sample. For this reason, we ask for as representative of a sample as possible; however, it is possible that the product received by a consumer or patient may be materially different from the sample we've tested.

Rm3 Labs only tests for Microbial organisms specified in the MED contaminant testing regulations and therefore other contaminants may be present other than those listed in this report.

There are currently no established protocols for cannabis testing in the U.S. As a result, each lab uses its own procedures and results from different labs may not be directly comparable.



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HEAVY METALS TESTING



The Colorado Department of Revenue - Marijuana Enforcement Division (MED) currently requires Microbial analysis of cannabis flower, cannabis products, water-based, heat/pressurebased, and food-based concentrates. Microbial analysis is also required on solvent-based concentrates that were produced using flower that failed Microbial testing. The Colorado Department of Revenue - Marijuana Enforcement Division (Med) requires heavy metals testing of cannabis products. this testing aims to protect cannabis consumers from harmful health effects associated with these substances. The list of heavy metals enforced by the MED currently comprises arsenic, cadmium, lead and mercury.

TEST METHOD LIMITATIONS

We do not test an entire "batch" of product; we only test the sample provided by the client. When testing cannabis products, we ask for as representative a sample as possible; however, it is possible that the product received by a consumer may be materially different from the sample we have tested.

Testing only covers the heavy metals specified in the MED contaminant testing regulations and therefore certain heavy metals may be present other than the ones listed in this report.

There are currently no established protocols for cannabis testing in the U.S. As a result, each lab uses its own procedures, and results from different labs may not be directly comparable.

Results of testing, and this report, may be used or displayed only by the client and only in connection with the batch of product from which the test sample was taken. By submitting a sample for analysis, the client has represented that product from which the sample has been taken is being held by the client in full compliance with Colorado state and local cannabis laws, and such product or any product made therefrom will only be offered for sale in compliance with such laws.



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RESIDUAL SOLVENT TESTING



The Colorado Department of Revenue - Marijuana Enforcement Division (MED) currently requires residual solvent analysis of cannabis extracts and concentrates using solvents for cannabinoid extraction. This residual solvent testing ensures consumer safety in cannabis concentrates from harmful health effects associated with these solvents.

The residual solvent limits enforced by the MED are as follows:

Propane	less than 1000.0 parts-per-million (ppm)	Toluene	less than 180.0 ppm
Pentane	less than 1000.0 ppm	Hexane	less than 60.0 ppm
Ethanol	less than 1000.0 ppm	Total Xylenes	less than 430.0 ppm
Acetone	less than 1000.0 ppm	Total Butanes	less than 1000.0ppm
lsopropyl Alcohol (IPA)	less than 1000.0 ppm	Heptanes	less than 1000.0 ppm
Benzene	less than 2.0 ppm		

** Solvent-based concentrates that exceed this acceptable limit for ethanol may only be used in concentrate or infused product for which the intended use is oral consumption, skin and body products, or audited product.

Rm3 Labs' Residual Solvent Testing Methods

At Rm3 Labs, we use Headspace Gas-Chromatography with Flame Ionization Detection, or headspace GC-FID. This method is widely used in the environmental and pharmaceutical industries to analyze for product or environmental contamination. For each test, the client provides us a small sample of the product. We heat the sample in an airtight vial to vaporize the residual solvents, sample the headspace in the vial and inject this headspace sample into the gas chromatograph for chemical analysis. In analyzing sample headspace, we screen out various matrix interferences present in the concentrate.

The Limitations of our Test Methods

We do not test an entire "batch" of product; we only test the sample provided by the client. Cannabis concentrates are not always uniform in nature and concentrations of residual solvents may vary from sample to sample. For this reason, we ask for as representative of a sample as possible; however, it is possible that the product received by a consumer or patient may be materially different from the sample we've tested.

Rm3 Labs tests for residual solvents specified in the MED contaminant testing regulations only and therefore other residual solvents may be present other than the solvents listed in this report.

There are currently no established protocols for cannabis testing in the U.S. As a result, each lab uses its own procedures, and results from different labs may not be directly comparable.

Results of our tests, and this report, may be used or displayed only by the client and only in connection with the batch of product from which the test sample was taken. By submitting a sample for analysis, the client has represented that product from which the sample has been taken is being held by the client in full compliance with Colorado state and local medical cannabis laws, and such product or any product made therefrom will only be offered for sale in compliance with such laws.



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